REMARKS

The Office Action dated March 23, 2007 has been received and carefully noted. The following remarks, are submitted as a full and complete response thereto.

Claims 1-21 are pending, of which claims 1, 11, and 21 are independent claims. As will be discussed below, each of the presently pending claims recite subject matter which is neither disclosed nor suggested in the cited prior art.

On page 2 of the Office Action, claims 1-21 were rejected under 35 U.S.C. §102(b) as anticipated by Sahni et al. ("*Data Structure for One-Dimensional Packet Classification Using Most-Specific Rule Matching*", Proceedings of the International Symposium on Parallel Architectures, Algorithms and Networks, 2002, IEEE – hereinafter Sahni). The Office Action contended that Sahni describes all of the claimed features of the present invention. In response, Applicant respectfully traverses the rejection without amending any claim because Sahni does not disclose or suggest all of the recitations of claims 1-21.

Independent claim 1, upon which claims 1-10 are dependent, is directed to a method for associating at least one rule with a key. The method includes arranging a plurality of objects in a table based on an ordering of information associated with each object wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; if the key is provided, employing a search method to determine a starting object entry in the table; if the key range of the starting object entry in the table is unequal to the provided key, employing

another search method to determine at least one object in the table that defines a smallest key range that includes the provided key; and enabling the processing of the provided key based on at least one rule associated with the determined object wherein the at least one rule applies to all key values of the key range of the determined object.

Independent claim 11, upon which claims 12-20 are dependent, is directed to a network device for associating at least one rule with a key. The device includes: a memory for storing instructions; a processor for enabling actions based on the instructions, including: arranging a plurality of objects in a table based on an ordering of information associated with each object, wherein each object defines a key range comprising at least one key value and at least one of the key ranges comprises multiple key values; if the key is provided, employing a search method to determine a starting object entry in the table; if the key range of the starting entry in the table is unequal to the provided key, employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key; and enabling the processing of the provided key based on at least one rule associated with the determined object wherein the at least one rule applies to all key values o the key range of the determined object.

Independent claim 21, which has no dependent claim, is directed to a network device for associating at least one rule with a key. The network device includes: a means for arranging a plurality of objects in a table based on an ordering of information associated with each object, wherein each object defines a key range comprising at least

one key value and at least one of the key ranges comprises multiple key values; a means for employing at a search method to determine a starting object entry in the table if the key is provided; a means for employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key if the key range of the object at the starting entry in the table is unequal to the provided key; and a means for enabling processing of the provided key based on at least one rule associated with the determined object, wherein the at least one rule applies to all key values of the key range of the determined object.

As will be discussed below, each of the presently pending claims recite subject matter which is neither disclosed nor suggested in the cited prior art.

In the rejection of claims 1, 11, and 21, the Office Action contended that Sahni describes Applicant's claimed feature directed to the first "if" condition in the claims, which is directed to employing a search method to determine a starting object entry in the table when a key is provided. The Office Action cited page 3-4, Section 2.2 (End-Point Array) as describing the claimed feature. However, Applicant respectfully asserts that the end-points in an array described therein and shown in Fig. 2(b) of Sahni are not similar to employing a search method to determine a starting object entry in a table of the present invention as described starting on third paragraph on page 9 of the specification. More specifically, Sahni fails to disclose the feature wherein, if the key is provided, employing a search method to determine a starting object entry in the table, such as recited in claim 1.

Further, in the rejection, the Office Action contended that on page 2, column 2, paragraphs 6 and 7 and page 3, column 1, paragraph 1, Sahni describes the second "if" condition in the claims, which is directed to employing another search method to determine at least one object in the table that defines a smallest key range that includes the provided key when the key range of the staring object entry in the table is unequal to the provided key. However, Applicant respectfully asserts that the cited text of Sahni actually describes "most-specific-rule matching", which does not relate to the alternative search method that is performed based on the second "if" condition recited in the pending claims.

Applicant notes that the section describing "most-specific-rule matching" and the section directed to "end-point array" in Sahni cited by the Office Action appear in separate and unrelated parts of the publication. Moreover, even if the cited sections were relating to the claimed first and second "if" conditions or the alternative search method based on the "if" conditions of the presently claimed invention, there is no motivation or suggestion to combine "most-specific-rule matching" with "end-point array" described in Sahni to arrive at the presently claimed searching algorithm.

As discussed above, Sahni fails to teach, disclose, or suggest at least the first and second "if" conditions recited in the pending claims. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the pending obviousness rejection over Sahni.

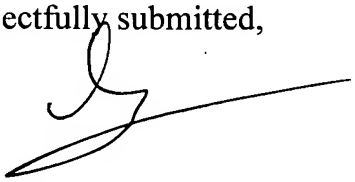
In view of the above, Applicants respectfully submit that each of the claims 1-21 recites subject matter which neither disclosed nor suggested in the cited reference to

Sahni. It is therefore respectfully requested that these pending rejections be withdrawn, and this application pass to issue with the allowance of pending claims 1-21.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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